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BUSINESS EDUCATION STANDARDS.

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STANDARDS OR "CRITERIA FOR MEASURING THE QUALITY AND QUANTITY OF PRODUCTION" WHICH STUDENTS SHOULD ACHIEVE BEFORE ENTERING THE LABOR MARKET ARE SUGGESTED FOR TYPEWRITING, SHORTHAND, BOOKKEEPING, OFFICE MACHINES, AND ARITHMETIC. THESE CAN BE USED TO HELP DETERMINE GRADES FOR EACH MARKING PERIOD, TO SHOW STUDENTS WHAT WILL BE EXPECTED OF THEM IN A BUSINESS OFFICE AND AS A BASIS FOR RECOMMENDING STUDENTS FOR EMPLOYMENT. (FS)

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BUSINESS EDUCATION STANDARDS

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MESSAGE FROM THE SUPERINTENDENT OF PUBLIC INSTRUCTION

The need for an increasing number of office employees is apparent as America moves ahead technologically. This growing need necessitates the school's responsibility to develop specific standards to be achieved by pupils similar to the way industrial standards evolve.

The material in this guide deals with quantity standards which are flexible and may vary from one school to another. Teachers should encourage pupils to strive for the attainment of these standards. Those who do not attain these standards will not necessarily fail. Additional training should be given to qualify for employment.

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March 1966

BUSINESS EDUCATION STANDARDS

> . . . less than 5% of the total clerical work force--now approximately 10 million strong--has been tested by work measurement methods. On the other hand, approximately 80% of the blue collar workers in the U.S. have been rated by work measurement systems.[1]

Work measurement in the office is a natural adjunct to measurement in the plant which has been in progress for many years.

Schools use the term "standards" rather than "work measurement" or "productivity." Standards might be defined as "criteria for measuring the quality and quantity of production." Because of the varying demands of businesses in different employing areas, standards are relative, rather than absolute. Employers fail to agree on the standards and achievements necessary for occupational efficiency, just as teachers fail to agree on grading.

Each community should organize an advisory committee. An advisory committee should be composed of a representative group of school administrators, business teachers, business education department heads and supervisors, and executive and nonexecutive office personnel. The office personnel should represent businesses in the employment area for which the school educates workers. One of the important responsibilities of an advisory committee is to analyze existing standards and determine whether they are reasonable and achievable.

Purpose of On-the-Job Standards

Employers have certain work requirements they expect office personnel to meet just as plant employees are expected to produce a prescribed quota. In

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[1]Noel Buckly, "The Idle Fifth Man in the Office," Dun's Review and Modern Industry, 82:47, November, 1963.

discussing standards, Caleo[2] indicates that they can be determined scientifically. He states:

> Work standards, to be truly reliable, must be determined through time-motion analysis of the tasks for which the standards are being developed. The most precise way to arrive at a production standard for our typical clerk would be to break her work cycle down into its basic elements (steps she performs to accomplish one unit of work) and then set a normal time for the performance of each element. By totalling these individual times, we get a standard time for the entire cycle. Once this is known it is a simple matter to determine how many work units, or cycles, she should complete in a day.

Many benefits are derived by the use of performance standards to evaluate the work of employees. Jehring and Voelker[3] have enumerated some of the values that accrue:

1. Proper size of the clerical staff in relation to present and expected workload can be determined.
2. Management can schedule work requirements more efficiently and set production estimates when it is familiar with worker potentiality.
3. Management can keep fully informed of the workers' performance.
4. Management can become familiar with the details of every clerical activity.
5. Burden of supervision is lessened as standards measure and, to a degree, control output.
6. More accurate and positive evaluation of employees may be obtained with the use of standards.
7. Comparative efficiency of individual departments or offices can be determined.
8. Reduced costs result from increased efficiency.

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[2]Robert L. Caleo, "Measuring Repetitive Office Work," Administrative Management. 25:18, August, 1964.

[3]J. J. Jehring and K. E. Voelker, Office Incentives (Willow Grove, Pennsylvania: Administrative Management Society, 1964), p. 41

As indicated by point 8, the basic reasons for standards is to increase efficiency of office operation and procedures. High standards should increase efficiency.

Use of Standards

When standards are developed teachers can point out rather specifically to pupils what will be expected of them in a business office. Standards can be applied to several aspects of the school program.

Guidance

Standards help determine whether a pupil has the basic knowledge and aptitude to attain a level of employability. For instance, a pupil needs certain competencies to become a stenographer. In advising a pupil whether to take shorthand, consideration should be given to the tenth-grade English grade; the results of a foreign-language aptitude test, stenographic aptitude test, or English test; and a mental ability test. Other factors to be considered are good hearing and the pupil's desire to learn shorthand.

Grading

In almost every marking period, standards can be used to help determine grades. The final grade in skill subjects, such as shorthand and typewriting, should represent the achievement of the pupil at the end of the school term and should not be determined by averaging the grades a pupil earned each marking period. This will enable both the school and the prospective employer to compare subject-matter achievement with standards acceptable to employers providing the employers are informed how to interpret the school's standards and grading system.

Placement

Recommendations of pupils for employment must be based on the abilities which conform to the initial job standards expected by business. Employers are

becoming increasingly aware of the need to adopt standards for office employees. Although employers are adopting reasonably high standards, it is recognized that different levels of competency are needed in the various jobs found in office work. Most employers use employment test results only as guides and place more reliance on multiple interviews and the recommendations of the high school business department.

Limitations

Before discussing standards relating to competencies in specific subject areas, it should be recognized that many problems are inherent in setting standards.

First, individuals react differently to measurements; therefore, the results of tests that measure speed should be considered accordingly. For instance, some pupils are so stimulated by timed tests that they respond with both high-quality and high-quantity work. Others are so upset that they cannot control their emotions and consequently give a below-average performance. Since some pupils perform poorly on tests, it is suggested that the individual marks for tests not be announced publicly. Instead pupils should be informed privately of their marks.

Second, some activities in which office personnel are involved cannot be measured precisely. For instance, with the number of telephone calls and other interruptions of the secretary, it is almost impossible to set standards of production for the secretary with any degree of accuracy.

Collins[4] stresses this problem when he states:

> Business educators have given much consideration to the typewriting, shorthand, and transcription rates of students, but the environment in

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[4]L. M. Collins, "Teach for Office Employment," Business Education Forum, 19:22, April, 1965.

> which these rates have been recorded is somewhat unrealistic. A straight copy typing rate does not fortify the student who is compelled to work with diversified dictation and varied applications. Transcription rates on four, five, or even seven letters does not fortify the beginning stenographer who is confronted with fifteen letters, plus the normal office interruptions of telephone, mail, and callers in addition to the routine office chores. Can't we add a few of these problems in our advanced training and then check the production rate, measuring the number of mailable letters produced from this typical office environment?

Third, standards are more difficult to establish in some areas than in others. It is relatively easy to establish standards in skills, especially those based on manual dexterity, such as typewriting. However, it is somewhat more difficult to establish standards in skills based on mathematics, such as business arithmetic, and skills based on accepted forms, such as letter writing and memorandums. Business law and general business are subjects in which it is still more difficult to set up standards because the emphasis is on knowledge and attitudes rather than skills. The establishment of any set standard for attitudes is most difficult.

Fourth, standards are ideals and are of value only when related to the competency being tested. When standards are used to evaluate either pupils or applicants for a job, consideration should be given to other factors or intangible qualities such as businesslike attitudes, character, dependability, effective human-relations traits, and good work habits.

Fifth, the same standards will not apply to each school. They are a guide and each school must determine its own standards based upon the employment area and abilities of students electing business education.

Sixth, standards established as a result of research and careful investigation are more reliable than standards representing personal opinion. Some standards found in courses of study and empirical literature represent personal opinion.

Seventh, fatigue plays a part in setting standards. A pupil cannot do work of the same quality and quantity in the seventh period of the day as in the first period unless he is highly motivated.

Eighth, there is a significant difference in the ability of teachers as well as the quality and type of equipment. It is possible for a good teacher with obsolete equipment to accomplish more than a below average teacher with up-to-date equipment.

Ninth, at times, tests given by the employer do not measure the standards which pupils are urged to achieve. Employers should construct tests in accordance with suggested standards. In two shorthand dictation examinations recently administered by an employer, the examinations were called "80 Words a Minute." The material, however, was word-counted in actual words. The first test was really at 107 words a minute, and the second at 100 words a minute.

For many reasons, therefore, it is not logical to suggest standards which should be met each marking period. Instead, standards which a pupil should achieve before entering the labor market are suggested.

Typewriting

In testing the typewriting speed of pupils, the trend is to use actual (gross) words a minute and to give 3-, 5-, and 10-minute tests on new continuous copy of average difficulty. High schools generally do not administer 10-minute tests for speed in typewriting. The suggested minimum standards in the final (last) typewriting course for vocational business pupils on the basis of the best of three timed writings with not more than 1 percent of error (1 percent of words typed) in a 3-, 5-, or 10-minute writing are:

Grade	Words a Minute (3-Minute Test)	Words a Minute (5-Minute Test)	Words a Minute (10-Minute Test)
A	65	60	55
B	60	55	50
C	55	50	45
D	50	45	40

The 1 percent tolerance will set a 2-error maximum for 3-minute writings for A, B, C, or D. In the 10-minute writing, a student must type 550 gross words with not more than 6 errors to earn an A or 400 words with not more than 4 errors for a D. This is a general standard by which papers are excluded and when used explicitly errors would not be a determinant of the grade.

Other factors that might be considered are:

Percent of Typewriting Speed	Material to be Typed
75	Business letters
50	Addressing envelopes
40	Simple rough drafts
25-40	Simple tabulation
50	Stencils
60-75	Manuscripts without footnotes
40-50	Manuscripts with footnotes

A limited amount of research indicates that a slow typist transfers to problem typing a higher percent of his straight-copy skill than a fast typist. Therefore, straight-copy skill is not always an indicator of what a typist will do in typing office work.

A final grade is determined by many factors, not speed alone. A pupil should not fail a typewriting course because he types a few words short of meeting a speed requirement. Occasionally, a slower typist moves ahead more rapidly on the job than does one who was a faster typist in school.

A realistic test or series of tests at the end of a course in typewriting would be the assignment of two or more projects to be completed by a given date. The starting and completion dates should be recorded when each student is given enough paper to provide for one typing of each project. Encourage the use of a dictionary and permit erasures. In determining a grade, uncorrected errors and errors that cannot be corrected unless the page is retyped should be penalized accordingly.

The crux of the problem in setting up typewriting standards is that the proficiency of typists in an office situation is based on the ability to type production work in acceptable form within a reasonable length of time rather than in typing 40 or 50 words a minute. However, when applying for a job, applicants usually are given a timed writing and enough attention must be given to timed writings in the classroom so that students are not awed by an employment test. Pupil competency in typewriting, to the degree possible, should be measured on office materials. Therefore, teachers need to ascertain the kind of duties that beginning office workers perform in their own employment area.

Shorthand

The final grade for achievement may be determined by averaging the grades for (1) rate of dictation, (2) rate of transcription, and (3) percent of mailability. Specific grades that might be assigned are:

Grade	Rate of Dictation
A	110 WAM and up
B	100 WAM
C	90 WAM
D	80 WAM

Grade	Rate of Transcription
A	30 WAM
B	25 WAM
C	20 WAM
D	18 WAM

Grade	Percent of Mailability
A	96 - 100
B	90 - 95
C	84 - 89
D	79 - 83

The rate of dictation used by many business teachers is not an absolute figure as dictation tests are given for the purpose of stimulating a pupil to increase his speed of taking dictation. Therefore, a pupil is urged to try for the next higher rate of dictation after attaining a minimum of 95 percent accuracy on at least three transcripts at the same speed. (The total number of errors including missed words, spelling, capitalization, and punctuation should not exceed 5 percent of the words dictated.)

The transcription rate should be based on the average of three writings. However, one must consider the difficulty or complexity of material--the length of a letter; syllabic intensity; need to check spelling and syllabication; number of carbon copies; addressing envelopes; and the verification of dates, addresses, telephone numbers, and statistical information.

The total number of transcripts completed the last six weeks should serve as the base for determining the percent of mailability. The percent of mailability is considered separately from the rate of transcription or the rate of dictation. If 50 letters were dictated for transcription during the last six

weeks and 45, or 90 percent, were transcribed with mailability, the grade for mailability is "B." Mailability might be defined as a letter that most executives would be willing to sign. The teacher needs to emphasize accuracy, neatness, and correct use of grammar since businessmen are primarily concerned with these three items.

Bookkeeping

Standards of achievement in bookkeeping will be less specific than those for typewriting and shorthand. It is more important to know why and how to place entries than to make a given number of entries in a stated time.

Not only do business organizations need more complete and accurate records for management purposes, but also more information for government tax records. If the bookkeepers of tomorrow are to keep precise records, the students of today must learn the application of bookkeeping principles as well as the skill involved.

A suggested list of standards of achievement for first-year bookkeeping includes an understanding of

1. the meaning of asset, liability, proprietorship, income, and expense accounts and how to classify such accounts.
2. the analysis of transactions in their debit and credit parts, and the journalizing of these transactions.
3. which journals to use when recording transactions in special journals.
4. posting journal entries to the ledger.
5. the preparation and uses of the worksheet, the income statement, and the balance sheet.
6. the preparation of adjusting and closing entries.

7. the preparation of a post-closing trial balance.
8. the handling of controlling accounts and their relationship to subsidiary ledgers and preparation of schedules.
9. our general system of taxation.
10. the handling of payrolls and the recording of transactions related to them.
11. the various types of records and machines used in manual and machine bookkeeping.
12. what data processing is; and how it can be phased into the accounting department when the volume of records justifies it.

A suggested list of standards of achievement for second-year bookkeeping includes an understanding of

1. bookkeeping information needed by management for making decisions that control the efficient and profitable operation of a business.
2. the meaning of accrued expenses and income and how to handle them.
3. the differences and reasons for cash and accrual bases of accounting.
4. the problems and procedures of distribution of profits in a partnership.
5. the differences between a single proprietorship, partnership, and a corporation.
6. how the distribution of profits of a corporation differs from that of a single proprietorship and partnership.
7. the interpretation of the trends in financial activities of a business for several fiscal periods as taken from the balance sheet and income statement.
8. an auditor's report.

9. the developments and concepts that have a direct bearing on economics, such as the importance of profit as an incentive for business and as a foundation for free enterprise.
10. basic departmental accounting.
11. basic cost accounting.

Office Practice

Office practice, as taught on the twelfth-grade level, is a finishing subject for pupils who choose business subjects for vocational competency and subsequent employment. It provides an opportunity for pupils to learn how to perform routine office duties and to become acquainted with office machines commonly used in the business office. Therefore, approximately half the scheduled time in office practice should be devoted to instruction on office machines and the remainder in the subject area--including units in applying for a position, arithmetic review, business forms, communication, filing, use of reference materials, and personality development.

Since so many units of work are taught in office practice, it is difficult to establish standards for any specific area indicated above with the possible exception of some office machines and arithmetic review.

Office Machines

There are three levels of pupil achievement in learning to operate office machines: (1) an orientation experience; (2) a functional knowledge which includes skill in the fundamentals; and (3) a vocational achievement in which a pupil acquires a marketable skill on all aspects of an office machine. The typewriter is the only office machine on which there is an attempt by all schools to develop vocational achievement. Other office machines, for the most part, are taught for either an orientation experience or functional knowledge

with the thought that accuracy and speed will develop as a person uses these machines in an office experience. Some standards which have been developed for use of equipment other than typewriters follow.

Adding-listing Machine. A suggested standard is one hundred checks which pupils should be able to add on a ten-key or full-bank adding-listing machine in five minutes or less. However, the number of strokes involved in the problem is a factor to be considered in setting up a standard. Pupils will not have difficulty reaching their goal on the ten-key adding-listing machine because it is operated by touch rather than by sight.

Key Punch. A suggested standard is 5,000 strokes per hour with 97 percent accuracy.

Arithmetic Review

Standards should be based on a high degree of accuracy, since nothing less than perfection in arithmetical calculations is permitted in business. Some suggested standards are:

1. Addition - 1 digit, 1 second. For instance, the following problems should take 20 seconds or less.

40,261	6,825
18,632	7,384
92,407	3,712
75,945	1,469
	9,233

2. Subtraction - 1 digit, 1 second. For instance, the following problems should take 10 seconds or less.

39,624	629,364
21,968	2,928

3. Multiplication and Division - In these procedures it is not possible to set up standards relative to the time it takes to work a problem based on

the number of digits. For instance, in the following examples, where both problems contain the same number of digits, the first problem might be worked in 10 seconds and the second in 25 seconds:

(1) 7,824 × 9 (2) 428 × 79

The same is true in the following problems where the first example might be worked in 10 seconds and the second in 25 seconds:

(1) $8\overline{)206,459}$ (2) $96\overline{)54,028}$

These standards also would be applicable for business arithmetic.

Practical Arts Subjects

In subjects such as business law and general business it is not possible to set forth specific standards such as those which have been presented for other subjects. Projects or activities for which goals might be developed are:

1. Homework and routine classwork assignments.
2. Written reports and notebooks relating to a specific area such as banking.
3. Vocabulary comprehension which might include pretesting and final testing (before and after tests).
4. Interpretation and analysis of published information.
5. Attitude tests (pretest, teach, retest) determine change in attitudes.
6. Ability to follow directions, neatness, accuracy, and promptness.

Promotion Standards

The specific standards mentioned to this point undoubtedly will be discussed with pupils in their respective courses. However, in one course, preferably office practice, it would be advisable to point out that certain factors need to be considered if one expects to be promoted in a job situation. Questions concerning the factors to be considered follow:

1. Does he have an amiable personality?
2. Does he work cooperatively with others?
3. Is his dress neat and appropriate?
4. Are personal problems left at home?
5. Does he have other basic requirements such as dependability, loyalty, enthusiasm, tolerance, cooperativeness, conscientiousness, and humility?
6. Does he know his place in the office?
7. Does he have the intelligence necessary to be trained for higher responsibility?
8. Does he have an understanding of grammar, including the knowledge to spell correctly?
9. Can production be increased to meet deadlines?
10. Can he communicate ideas and formulate results that can be understood easily by others?

Informing Employers about Pupil Standards

A means should be set up to inform businessmen objectively and accurately about the qualifications of pupils who have taken the business curriculum. The Department of Public Instruction's publication, Suggestions for Informing the Public about the Business Education Department, suggests useful media for this purpose. An example is a Proficiency Card or Achievement Certificate which indicates specific competencies in vocational business subjects. This card is given at the close of the school year to graduating seniors who have reached standards that are acceptable for entry-level jobs.

Conclusion

Teachers should emphasize that business continuously strives for greater achievement and employees are urged to produce to the best of their ability.

Materials, machines, and the environment are changed for the purpose of achieving greater production. Therefore, pupils should be informed that the lowest passable grades in school are similar to the minimum standards accepted in some business offices. Those who just meet minimum standards usually are the last to be hired.

Significant as standards might be, it must be borne in mind that the mental attitude of the pupil is most important. Pupils must develop interest, self-confidence, motivation to achieve, and a feeling of "worthwhileness" of their education. The interest and enthusiasm, as well as encouragement, provided by the teacher help develop these desirable qualities.